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Christie Whitman, Governor
Art Brown, Jr., Secretary

FOREST PEST REPORTER

Division of Plant Industry CN 330 Trenton, NJ 08625-0330 609-292-5440

Gypsy Moth Spraying To Begin May 5th

The New Jersey Department of Agriculture, in cooperation with 18 municipalities and the USDA's Forest Service, is set to begin gypsy moth aerial spraying on May 5, weather permitting, in forested residential areas in southern New Jersey. A total of 4,480 acres, involving 18 municipalities in seven counties, have signed up for participation in the voluntary tree protection program.

Municipalities participating in the aerial spray program include Egg Harbor Township (130 ac.) in Atlantic County; Medford Borough (30 ac.), Medford Township (125 ac.), Shamong Township (145 ac.), and Southampton Township (310 ac.) in Burlington County; Berlin Borough (55 ac.), Berlin Township (45 ac.), Voorhees Township (570 ac.), and Waterford Township (555 ac.) in Camden County; Upper Township (180 ac.) in Cape May County; Fairfield Township (60 ac.), Maurice River Township (375 ac.), Millville City (475 ac.) and Vineland City (795 ac.), in Cumberland County; Elk Township (60 ac.) and Franklin Township (130 ac.) in Gloucester County; and Upper Pittsgrove Township (160 ac.) and Pittsgrove Township (280 ac.) in Salem County.

All areas will be aerially treated with one application of *Bacillus thuringiensis*, at a dosage rate of 30 B.I.U.s or 80 ounces (undiluted formulation) per acre. The state Treasury Department allowed an extension of the current contract with Downstown Aero Crop Service of Vineland at the bid price of $11.90 per acre.

FUNGUS RESULTS IN COUNTRYWIDE CRASH OF GYPSY MOTH

Gypsy moth defoliation levels in the 14 states impacted by the pest dropped from 1,418,537 acres in 1995 to 199,377 acres in 1996. The most dramatic drop occurred in Virginia where gypsy moth defoliated 850,000 acres in 1995 and **NONE** in the summer of 1996.

The fungal pathogen, *Entomophaga maimaiga*, which caused chaos among the caterpillars last season, also disrupted mating (no parents, no partners). USDA/Forest Service requests from states for gypsy moth treatments are down to 133,000 acres in 1997, the **lowest spray acreage in 29 years**.

The New Jersey Department of Agriculture's gypsy moth spraying has decreased nearly 80 percent from last year (21,311 acres in 1996 to 4,480 acres in 1997) which is the second lowest figure since cooperative gypsy moth suppression projects were begun in 1970. The mild wet winter and spring strongly favors the fungus and gypsy moth numbers are expected to decrease further this year.

GYPSY MOTH SUPPRESSION PROGRAM STAFF:

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DEPARTMENT STAFF ASSISTS NEW YORK WITH ASIAN LONGHORNED BEETLE SURVEY IN BROOKLYN

The recent detection of the foreign wood-boring pest, Asian longhorned beetle, in two areas in New York prompted the Division of Plant Industry to send several teams of inspectors to New York City to assist the New York Department of Agriculture and Markets and the USDA in surveying for this pest in public and private shade trees in Brooklyn. Our inspectors received valuable hands-on training on the detection and identification of this significant forest and shade tree pest. In addition, our staff assisted New York officials in identifying infested trees for removal before the May emergence of the adult beetles.

The Asian longhorned beetle eradication project, which has a cost figure of $2.5 million, is moving along on schedule with 450 trees removed, chipped and incinerated in Amityville; 361 trees removed from street and public parks in Green Point; and another 280 trees being removed on private property in back of buildings. The purpose of the removal is to destroy the trees before the adult beetles emerge.

The beetle was first found in September 1996, about ten years after leaving some discarded dunnage on Long Island. The beetle attacks healthy trees, including Norway, sugar, silver, and red maples with other favorites being horsechestnut, poplar, willow, elm, mulberry and black locust. They tend to colonize a tree, attacking the upper portions first and then working downward, even to the root collar, until the tree eventually dies. The beetles are native to Japan, Korea and southern China where they cause enormous damage.

The best means of identifying infestations of the Asian longhorned beetle is by the damage it causes. Perfectly round 3/8 inch holes (you can easily insert a pencil in them) in the main stem and along branches of susceptible hosts is an important sign of beetle attack. Also, the trees seem healthy until the very end when they appear to be completely riddled with large "buck shot" holes. It was also observed that the upper crowns tend to break off as if hit by ice damage.

Figure 1.
Adult beetle length = 1 to 1 1/4 inch

Figure 2.
Adult beetle and larval tunnels

Figure 3. Sawdust from adult beetles emerging from tree

Figures 1, 3: USFS, Northeastern Area. Figure 2: Charlie Harrington, Cornell University.